

ASAHIKLIN

AsahiKlin™ AE3000

Product Description

Asahiklin AE3000 is a fluorinated solvent used for cleaning, drying, and as a carrier solvent. This Hydrofluoroether (HFE-347pc-f) is a nonflammable solvent that has excellent material compatibility, low surface tension, low Global Warming Potential, and Zero ODP.

Applications

- Precision cleaning of metals, alloys, composites, and plastics
- Carrier solvent for fluorinated oils and greases
- Carrier solvent for silicone oils
- Drying agent after cleaning with hydrocarbons or alcohols
- Particle removal
- Replacement for HCFC, Dupont™ Vertrel®, & 3M™ Novec™ solvents

Benefits

- Non-flammable
- Non-corrosive
- Low global warming potential (GWP)
- Zero ozone depletion potential (ODP)
- Low surface tension, low viscosity, high liquid density
- Excellent thermal, chemical, and hydrolytic stability
- Superior drying property
- Excellent permeability
- Recyclable
- Recoverable by simple distillation
- Can be used with ultrasonics
- No surfactants necessary

Material Composition

1,1,2,2-tetrafluoroethyl-2,2,2-trifluoroethyl ether	100%
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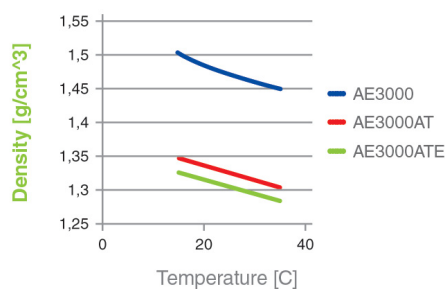
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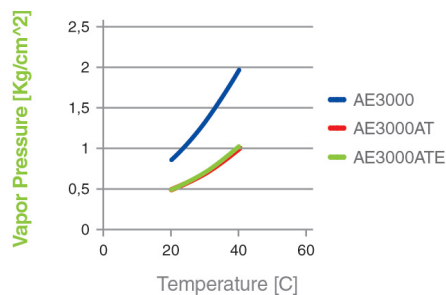
Physical Properties

Boiling Point	56°C (132.8°F)
Melting Point	-94°C (-137.2°F)
Density (g/cm ³ , 25°C)	1.47
Viscosity (cSt, 25°C)	0.44
Surface Tension (dyne/cm/ 25°C)	16.4
Latent Heat of Vaporization (KJ/kg, 39°C)	163
Relative Evaporation Rate (Ether=100)	67
Flash Point (Open/Closed Cup)	None
Vapor Pressure (kg/cm ² , 25°C)	0.32

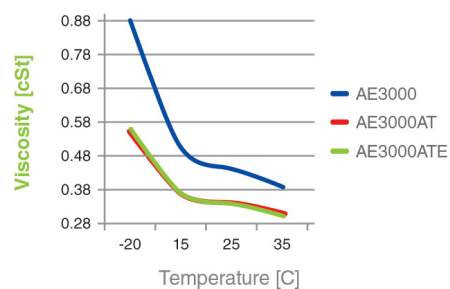
Density vs. Temperature



Vapor Pressure vs. Temperature



Viscosity vs. Temperature



Cleaning Procedures

It is recommended that Asahiklin AE3000 be used in a vapor degreaser to optimize cleaning efficiency, economy, and emission control. Cleaning procedures for Asahiklin AE3000 are quite similar to those of AK225 products. The procedures consist of immersing a workload into the boiling solvent, rinsing or spraying with cool solvent and drying in solvent vapor.

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Material Compatibility

Asahiklin AE3000 has a broad range of compatibilities.

Effect of Asahiklin AE3000 on Unstressed Plastics and Elastomers at Boiling Point.

At boiling for 3 days	Weight change (%)	Linear Swell (%)
Polypropylene	<2.5	<1.0
Polystyrene	<0.1	<0.1
Polymethyl methacrylate	affected	affected
ABS	<0.1	<0.1
PTFE	<2.5	<0.1
Fluoroelastomer	>86	>24
Silicon Rubber	<12.5	<2.5
EPDM	<0.1	<0.1

Environmental Properties

Properties	Asahiklin AE3000
Ozone Depletion Potential (ODP) ¹	None
Global Warming Potential (GWP) ²	580
Flash Point	None

¹ CFC-11 = 1.0

² CO₂ = 1.0, 100yr ITH

Environmental Health and Safety

Please read the current product Material Safety Data Sheet (available through your AGCCA technical service representative) and the precautionary statement on the product package prior to use. Follow all applicable precautions and directions.

ASAHIKLIN AE3000 is nonflammable. The solvent is resistant to thermal breakdown and hydrolysis during storage and use. Recommended handling procedures are provided in the Material Safety Data Sheet, which is available from your AGCCA representative upon request.

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